MOTION OF TIME IS HELICAL OR SCREW MOTION NOT JUST TRANSLATIONAL, AND ITS CONSEQUENT DISCUSSIONS.

To discuss the topic mentioned above, I will start with my postulation about the Universe as stated below:

We assume, at the beginning of the Universe, there was nothing but a huge Primordial Energy Field which was in an absolutely unperturbed state with Entropy 0. Gravity, Space Time, and everything we see in this world remain in an un manifest state. In this situation an operator (Hamiltonian) acts on this Field breaking it into two Domains. We conceptualize the 1st Domain to consist of Matter, Radiation, Force,, Field etc, in effect, everything tangible we see in this world, and the 2nd Domain consisting of Space-Time and other intangible things (like Dark Matter, Dark Energy, etc), known or unknown to us. Thus 1st Domain represents Gross Matter and 2nd Domain represents Subtle Matter. This split-up of the Primordial Energy Field broke the symmetry or balance creating a Force called Gravity in the first domain and an Inflationary Force causing very quick expansion of the Universe. This also increased entropy of the system in the process, Gravity is supposed to be a bridge between these two domains, which works unhindered in both of these domains and is represented by a Tensor, while the Domain for Gross Matter is represented by a Ket Vector and the Domain for Subtle Matter is represented by a Bra Vector as per Dirac’s notation, according to our postulation.

We notice, though Gravity is the common field in both the domains, there is no electromagnetic field or nuclear field in the second domain. I believe it is due to absence of electron, proton, neutron etc, which are real particles and hence not present in the second domain Since light wave equations in classical physics consists of both real and imaginary parts, can we construe that photon also has real and imaginary components.? While in the 1st domain of our conceptual universe photon may move in a straight line, in the 2nd part of the said Universe, photon or its imaginary counterpart will start circling and the total effect of a photon's motion (1st and 2nd part of the Universe taken together) will be a helical motion or

screw motion- the rotational part of photon's motion attributing the phase to the moving light ray. Now the Gravity Tensor (a six dimension tensor) creates translational force in the 1st Domain by creating field of attraction known as Gravity and the same Tensor acts as a wrench tensor (having component for translational motion as also rotational motion---thus creating a sort of screw motion) which causes curvature of the space-time continuum by which both space and time are curved.

Because of this time does not have just a translational motion but moves helically like a screw motion. In other words time does advance in a translational motion but it has also a circular motion, but this circular motion is helical, like a screw motion. So, after completion of one circular motion, it does not come back to its original position but proceeds linearly as well. The notion that **time is not exactly as we perceive it** and that its passage is **far from a straight line** aligns with several advanced theories in physics, including **general relativity, quantum mechanics, and alternative spacetime models.** Let us discuss them in short.

1. Time in General Relativity

- In Einstein’s **general relativity**, time is **relative** and depends on the observer’s motion and gravitational field.
- **Time dilation** occurs when an object moves at high speeds or is near a strong gravitational source, meaning time does not flow uniformly.
- The **curvature of spacetime** affects the passage of time, making it **nonlinear** in extreme conditions.

2. Quantum Mechanics & Time

- In quantum mechanics, time is often treated as a **parameter** rather than an observable quantity.

  Some theories suggest that time could exhibit **quantum fluctuations**, meaning its flow might not be continuous but instead governed by discrete quantum events.
- The concept of **superposition** implies that different timelines could coexist until measured.

3. Complex Stress-Energy Tensor & Time Behaviour

- If we introduce **complex values** into the stress-energy tensor, we might capture **hidden aspects of time**, such as rotational effects or quantum corrections.
- Some alternative theories propose that time has **imaginary components**, which could explain phenomena like **quantum entanglement** or **nonlocality**.
- The **double-domain universe** idea suggests that time might have a **hidden structure**, where real and imaginary components interact dynamically.

4. Experimental & Theoretical Implications

Some researchers explore **twistor theory**, which treats spacetime as a complex structure, potentially revealing new insights into time's behaviour.

- **Quantum gravity** models suggest that time might emerge from deeper quantum interactions rather than being a fundamental entity.

Why Is This Useful?

1. **Quantum Mechanics & Superposition**:
   - Quantum states exist in **superposition**, meaning they can coexist until measured.
   - If time itself allows state **superimposition**, we might explain phenomena like **quantum entanglement** more elegantly.
2. **Rotational Motion Without Translation**:
   - Traditional mechanics links rotation to a central axis and assumes **motion in space** over time.
   - If time itself permits **rotational dynamics independent of translation**, this could relate to **closed time like curves** (CTCs), suggesting cyclical time structures.

 Implications for Gravity & Spacetime:

- In relativity, time dilation and space-time curvature imply that time is **not linear**.

- If complex stress-energy tensors encode **rotational time dynamics**, we may uncover hidden symmetries affecting gravitational interactions.

Potential Applications

- **Quantum Gravity**: Could help unify quantum mechanics and general relativity by redefining time’s structure.
- **Cosmology**: Might explain cyclic universes or periodic gravitational wave behavior.
- **Computational Models**: Could introduce new frameworks for simulating time-dependent quantum phenomena.

If we could mathematically formalize this, we might redefine fundamental Physics.

our above discussion aligns with the **quantum mechanical interpretation** of the **double-slit experiment**! In quantum mechanics, a photon exhibits **wave-particle duality**, meaning it behaves as both a **wave** and a **particle**. When a photon passes through the slits, it does not take a single, well-defined path—instead, it exists in a **superposition of** states, effectively passing through both slits simultaneously.

How Time Plays a Role

- If time were **standing still** during measurement, it would imply that the photon exists in a **timeless superposition**, meaning it does not evolve in time until observed.
- This aligns with the **quantum wavefunction collapse**—before measurement, the photon is in a **probabilistic state**, but once observed, it "chooses" a definite path.
- Some interpretations suggest that **quantum interference** arises because the photon’s wavefunction **interacts with itself**, reinforcing or cancelling out probabilities at different points on the detection screen.

Does This Follow Logic?

- Our idea suggests that **time behaves differently at quantum scales**, which is a valid hypothesis in certain quantum gravity models.
- Some researchers explore **time as an emergent property**, meaning it may not be fundamental but instead arises from deeper quantum interactions.
- If time were **nonlinear or cyclic**, it could explain why quantum states appear to exist in multiple places at once.

.